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(54) TENT EXTENSION ASSEMBLAGES FOR VEHICLES

(71) I, RUSSELL JOHN SEARLE, a British Subject, of 1 Thames Corner, Thames Street, Sunbury, Middlesex, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:-

This invention relates to tent extensions for vehicles, more particularly but not exclusively motor vehicles.

According to the specification of my Patent No. 1,510,487, to which this is an addition, there is described and claimed, for use in the construction of a tent extension at the rear of a vehicle having a rear door of the type which is hinged to the vehicle along that edge of the door which is at the top of the door when it is closed, the door being so shaped and hinged to the vehicle that the opposite edge of the door is higher than the hinged edge of the door when the door is open, an assemblage comprising support means attachable to said door so as to provide an extension thereof from the edge of the door which is at the top of the door when the door is open and a tent extension having a part which is adapted for being supported on said door and on said support means and having wall portions which, when said part is supported as aforesaid, extend downwardly to enclose the two sides and the rear of an extension space at the rear of the vehicle, the part which is adapted to be supported by the door and the support means being so disposed with respect to the wall portions which enclose the two sides of the extension space as to slope downwardly when the tent is in the erected state from a position intermediate a free edge thereof and an edge thereof at which the said part is joined to the wall portion which encloses the rear of the extension space, towards said free edge.

I have now devised a modified form of the tent extension assemblage which is described and claimed in my Patent No. 1,510,487, the modified form of tent extension assemblage being of increased versatility insofar as a single design thereof will

generally be capable of use in providing a tent extension of a variety of different motor vehicles makes and models, in some cases irrespective of whether they are of the type having a rear door which is hinged to the vehicle along that edge of the door which is at the top of the door when it is closed, that is, a so-called hatch-backed vehicle, or a conventional saloon or coupé.

According to the present invention, there is provided, for use in the construction of a tented chamber adjoining the rear of a vehicle, an assemblage comprising a support arrangement and a tent extension, the support arrangement comprising an upstanding support means for standing on a rear bumper of the vehicle or on the ground adjacent the rear bumper of the vehicle and horizontal support means for coacting with and being supported by the end of the upstanding support means which is the upper end, in use, without being supported on the vehicle, which horizontal support means is shaped so as to be capable of supporting thereon an area of tent material of the tent extension so as to be substantially horizontally disposed when the upstanding support means stands on said rear bumper or on the ground, and the tent extension having a roof section whose dimensions correspond to those of the horizontal support means and which is to be supported on said horizontal support means, the tent extension having wall portions which, when said roof section is supported as aforesaid, extend downwardly from said roof section to define the sides and rear of said chamber and a further wall portion which, when said roof section is supported as aforesaid, extends downwardly from said roof section to the rear of the vehicle to define partially the front of said chamber, means additionally being included for drawing said further wall portion taut and into close engagement with the rear of the vehicle and for tensioning the tent extension in opposed directions extending lengthwise of the vehicle.

For a better understanding of this invention and to show how the same may be carried into effect, reference will now be made, 100

by way of example only, to the accompanying drawings, wherein:

Figure 1 is a perspective view of the rear part of one type of motor vehicle with a tented chamber embodying the invention erected on the rear thereof; and

Figures 2 and 3 are perspective views of the rear part of an alternative type of motor vehicle with alternative forms of tented chamber embodying this invention erected at the rear thereof.

Referring to Figure 1, there is shown a motor vehicle 1 of the hatch-back type whose rear door is hidden by a tented chamber 2 which encloses it. The tented extension, is constructed from and defined by an upstanding U-shaped frame formed from upstanding tubular members 3 and 4 and horizontal tubular member 5, the lower ends of the tubular members 3 and 4 resting on the motor vehicle bumper 6 and being provided with rubber feet 3a and 4a to avoid damage to the bumper and to improve grip on the bumper. Resting at a point along the length on the horizontal tubular member 5 at transverse cylindrical cut-outs therein are a pair of horizontal tubular members 7 and 8 which are able to undergo rotation in parallel vertical planes about a horizontal axis. Draped over the assembly of tubular members is a tent canopy 9 which comprises a flat roof section 10 lying over the tubular members 5, 7 and 8 and, two vertical walls 11, a rearwardly sloping wall 12 descending to a low rear wall 13 and a forwardly sloping wall 14 which extends down from the roof section 10 to the rear of the vehicle. A lower edge region 15 of the wall 14 is hemmed and a draw cord 16 passes therethrough emerging at the bottom of a flap 17 forming part of the wall 14 to pass around hooks 18 hooking under the wheel arches of the motor vehicle before returning to studs 19 on the flap 17 about which the tie cords are tied so as to be taut. In this way, the bottom edge 15 of the wall 14 fits closely to the body of the motor vehicle when it is reversed a slight distance after assembly of the tent extension, so as to prevent ingress of water to the tent canopy 9.

Guy ropes 21 are employed at the rear of the tent extension to give it stability in the longitudinal direction. The aperture in the forward direction of the tent extension achieved by the wall 14 not descending to ground level is largely closed by the rear of the vehicle and the remaining small space lying below the bumper of the motor vehicle is closed off by a flap 20 forming part of a ground wheel 22 whereby a waterproof seal is achieved. The upper edge of the flap is held in tension against the bumper to achieve a good seal thereagainst by means of an elastic strip sewn therein under tension

or a draw cord passed through a hem and drawn tight.

The tubular members 7 and 8 may be permanently attached to the said tent canopy. Because of the manner in which they coact with the tubular members 5, they can undergo restricted movement in a vertical plane about the tubular member 5 to adjust to variations in the inclination of the tent canopy or of the tubular members 3 and 4.

In an alternative arrangement, the tubular member 5 may be replaced by a tubular member which like the tubular members 7 and 8 is permanently attached to the canopy and supported with the tubular members 7 and 8 at the upper extremities of the tubular members 3 and 4. Moreover, instead of passing around hooks 18, the draw cord may act as a guy rope extending to pegs 23 on the ground as indicated in chain dotted lines thereby allowing a vehicle to be driven away from the tent extension if instead of resting on the vehicle bumper, the U-shaped frame stands on the ground.

In Figures 2 and 3, there are shown tent extensions employed on coupés 24. In Figures 2 and 3 like reference numerals denote like parts in Figure 1. The tent canopy is of similar form to that shown in Figure 1 but because of the shape of the rear of the coupé it extends to a line further forward on the body of the vehicle than on a hatch back vehicle. Accordingly, the draw cord emerging from the lower edge of the wall 14 of the vehicle cannot be attached to hooks on the rear wheel arch of the motor vehicle but has to pass through fixing positions further forward, for example hooks on the front wheel arch or may simply be passed around door handles 25 of the motor vehicle as shown.

The tent extensions shown in Figures 2 and 3 differ characteristically in the construction of the support provided for the tent canopy. In Figure 2 this comprises a plurality of tubular members which, by means of tubular connecting pieces fit together like scaffolding members. Thus, the support comprises a single upright member 26 comprising a pair of tubular members 26a and 26b joined together by a sleeve 26c and resting on a central portion of the car bumper 6. The upright tubular member 26a fits into a T-shape connecting member 27 from which protrude horizontal tubular members 27a and 27b extending transversely of the motor vehicle. At their outer extremities, the tubular members 27a and 27b enter into tubular spigots provided midway along tubular members 28 and 29 which extend lengthwise of the motor vehicle. Thus between them, the tubular members 27a 27b, 28 and 29 provide a horizontal support for the roof 10 of the canopy whose weight acting down on the support is

sufficient to keep the upright member firmly in position on the car bumper. By virtue of its being formed by a number of relatively short tubular members, the support, when taken apart, will occupy very little room when stowed away.

The support arrangement shown in Figure 3 differs from that shown in Figure 2 (and for that matter that shown in Figure 1) in that it comprises two upright members 30 and 31 which rest on the ground adjacent the rear bumper (not shown) of the coupé 24. Such a form of support is necessary with those motor vehicles which do not possess metal bumpers. For example the bumpers may be of the recessed impact resistant plastics type. As in the case of Figure 2, the support arrangement is of a type which may be readily assembled from its component parts. Thus, at their upper ends, the tubular members 30 and 31 comprise C-shaped spring ends 32 which clip onto a horizontal cross member 33 which in its turn has C-shaped clip members 34 which clip onto tubular members 35 and 36 extending lengthwise of the coupé 24.

In the accompanying drawings, tent extensions have been shown employed in association with hatch back motor vehicles and coupés. With hatch back vehicles, the tent extensions will allow similar advantages to be obtained as with the tent extensions described and claimed in the specification of my Patent No. 1,510,487 of allowing the readily accessible rear space of the vehicle which, when the back seats are let down may be sleeping accommodation to be extended into the interior of the tent extension. A tent extension of this invention allows similar extension of the interior space to be achieved with an estate car whose rear door is hinged at the upper edge thereof when the door is closed. With coupés, the tent extension, in having the rear of the car as one wall thereof may be protected against wind and rain by the positioning of the motor vehicle in such close proximity to the interior thereof. Moreover, the boot of the coupé will be openable within the tent extension so as to provide readily a cupboard or storage space for the interior of the tent extension. As previously indicated herein, the draw cord which is employed to provide a good seal along the bottom edge of the wall 14 is tied up through or to a fixed position such as a wheel arch, door handle or tent peg. In Figures 2 and 3, the rear wheel arches are not available for use for this purpose because of the forward position of the upper edge of the rear face of the vehicle. Such a position is also to be found with saloon vehicles and the use of the tent extension with saloon vehicles will be largely the same as with coupés.

Specifically in connection with Figures 2

and 3, the preferred rotation of the horizontal support means about a horizontal axis is achieved by rotation of the horizontal members 27a, 27b or 33 linking them, about the upper ends of the upstanding supports 26 and 30, 31 respectively.

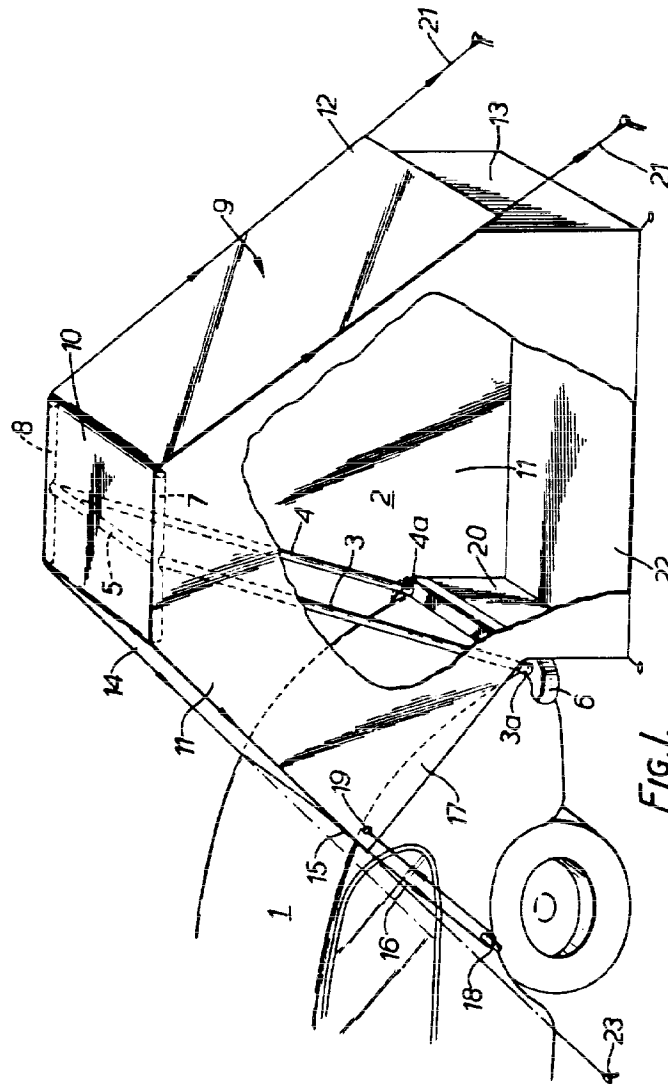
WHAT I CLAIM IS:-

1. For use in the construction of a tented chamber adjoining the rear of a vehicle, an assemblage comprising a support arrangement and a tent extension, the support arrangement comprising an upstanding support means for standing on a rear bumper of the vehicle or on the ground adjacent the rear bumper of the vehicle and horizontal support means for coacting with and being supported by the end of the upstanding support means which is the upper end in use, without being supported on the vehicle, which horizontal support means is shaped so as to be capable of supporting thereon an area of tent material of the tent extension so as to be substantially horizontally disposed when the upstanding support means stands on said rear bumper or on the ground, and the tent extension having a roof section whose dimensions correspond to those of the horizontal support means and which is to be supported on said horizontal support means, the tent extension having wall portions which, when said roof section is supported as aforesaid, extend downwardly from said roof section to define the sides and rear of said chamber and a further wall portion which, when said roof section is supported as aforesaid extends downwardly from said roof section to the rear of the vehicle to define partially the front of said chamber, means additionally being included for drawing said further wall portion taut and into close engagement with the rear of the vehicle and for tensioning the tent extension in opposed directions extending lengthwise of the vehicle.

2. An assemblage as claimed in claim 1, wherein the horizontal support means is capable of undergoing rotation about a horizontal axis when undergoing said coacting.

3. An assemblage as claimed in claim 1 or 2, wherein said upstanding support means comprises a pair of elongate members for standing spaced apart on said rear bumper or on the ground adjacent said rear bumper, which upstanding support members have an associated upper support member for coacting with or for attaching thereto to bridge the ends thereof which are the upper ends, in use, and a pair of support members for coacting with the upper support member at the ends thereof for forming with said upper support member of the upstanding support means a H-shaped arrangement for support of said roof section of the tent extension.

4. An assemblage as claimed in claim 2, wherein said pair of support members of the H-shaped horizontal support means are secured to the roof section of the tent extension. 5
5. An assemblage as claimed in claim 1 or 2, wherein the upstanding support means comprises one or two upstanding support members adapted at the upper end(s) thereof for attachment of a horizontal support member for positioning across the width of said vehicle, which horizontal support member is adapted at the ends thereof for engagement with respective further substantially horizontal support members which with it form said horizontal support means. 10
6. An assemblage as claimed in claim 5, wherein the end(s) of the or each upstanding support member which is the upper, in use, and of the horizontal support member for positioning across the width of the vehicle are formed with a C-shaped spring end for engagement respectively of the horizontal support member for positioning across the width of the vehicle and of said respective further substantially horizontal support members. 15
7. An assemblage as claimed in claim 5, wherein the component members of the support means are of tubular form and interengagement between adjacent tubular members to form the support means is achievable by means of tubular connecting members separate from or integral with said tubular members which form the support means and forming part of the assemblage. 20
8. An assemblage as claimed in any one of the preceding claims, in which the forward edge of said further wall portion is formed with a passage extending lengthwise thereof through which passes a draw cord, the assemblage additionally comprising means for securing the draw cord either after drawing around a fixed member on the vehicle, which securing means is on the tent extension, or for fixing on the ground. 25
9. An assemblage as claimed in claim 8, wherein said fixed members comprises hook members for positioning on a pair of wheel arch rims to be held thereon by means of said draw cord drawn therearound, in use. 30
10. A tent extension as claimed in any one of the preceding claims, additionally comprising a ground sheet having a flap portion for securing to said rear bumper of the vehicle. 35
11. A tent extension as claimed in claim 10, wherein said flap portion is adapted for holding taut at its upper margin when held to the rear bumper of the vehicle. 40
12. An assemblage for use in the construction of a tented chamber adjoining the rear of a vehicle, substantially as hereinbefore described, with reference to, and as shown in, Figure 1 of the accompanying drawings. 45
13. An assemblage for use in the construction of a tented chamber adjoining the rear of a vehicle, substantially as hereinbefore described, with reference to, and as shown in Figure 2 or 3 of the accompanying drawings. 50
14. A motor vehicle which has erected adjoining the rear thereof from an assemblage as claimed in any one of the preceding claims, a tented chamber. 55
15. A motor vehicle as claimed in claim 14, which is a hatch back vehicle as defined herein. 60
16. A motor vehicle as claimed in claim 14, which is a coupé or saloon vehicle. 65
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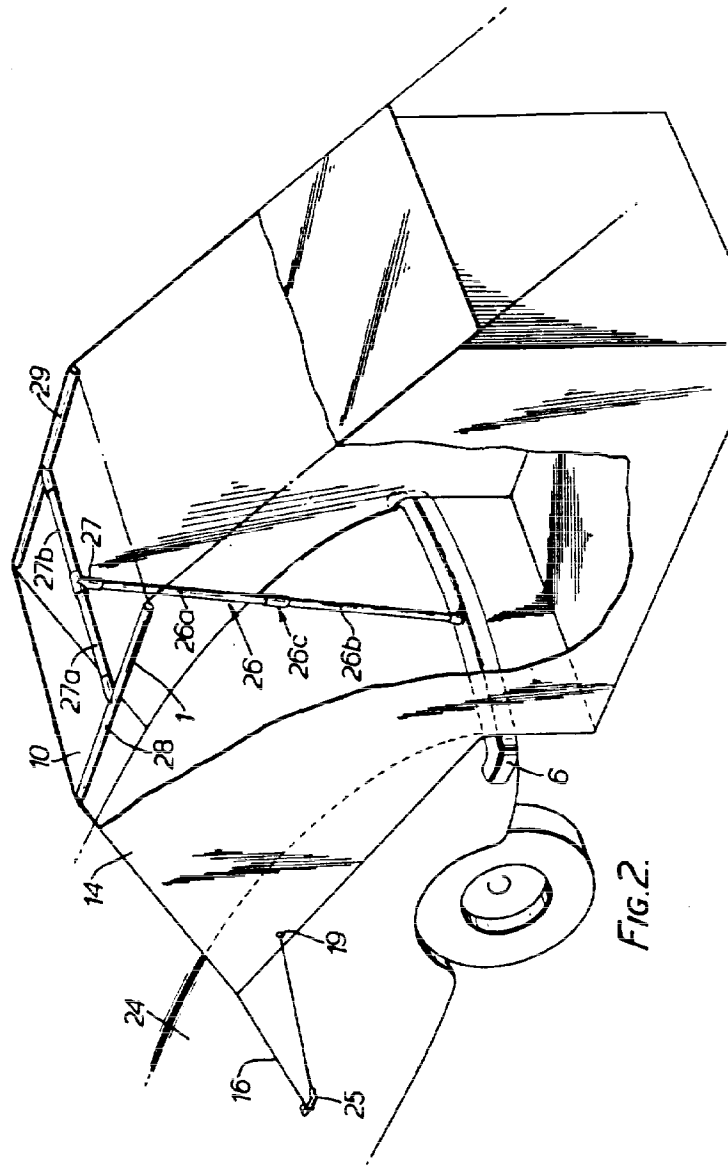


FIG 2

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COMPLETE SPECIFICATION

3 SHEETS

This drawing is a reproduction of
the Original on a reduced scale

Sheet 3

